

CLAIMS

1. A pulley engageable with a belt for use in a continuously variable transmission (CVT), comprising:

first and second pulley halves rotatable about an axis and relatively moveable in a direction of the axis, said pulley halves including
5 truncated conical portions symmetrically opposed to each other and outer surfaces being axially opposed to each other and sloped relative to the axis, said outer surfaces having a circumferential roughness average ($R_{a,y}$) measured in a direction (y) circumferential to the axis between approximately 0.15 and 1 micrometer.

2. The pulley of claim 1, wherein said outer surfaces have a radial roughness average ($R_{a,x}$) measured in a direction (x) radial to the axis, and a ratio $R_{a,x}/R_{a,y}$ between approximately 0.5 and 2.5.

3. The pulley of claim 2, wherein said outer surfaces are machined by shot peening, grinding, stone polishing or tape polishing.

4. The pulley of claim 2, wherein said circumferential roughness average ($R_{a,y}$) is between 0.17 and 0.3 micrometers, and said ratio $R_{a,x}/R_{a,y}$ is between 1.7 and 2.3.

5. A pulley engageable with a belt for use in a continuously variable transmission (CVT), comprising:

first and second pulley halves rotatable about an axis and relatively moveable in a direction of the axis, said pulley halves including
5 truncated conical portions symmetrically opposed to each other and outer surfaces being axially opposed to each other and sloped relative to the axis, said outer surfaces having a radial roughness average ($R_{a,x}$) measured in a

direction (x) radial to the axis, a circumferential roughness average ($R_{a,y}$) measured in a direction (y) circumferential to the axis, and a ratio $R_{a,x}/R_{a,y}$
10 between approximately 0.5 and 2.5.

6. The pulley of claim 5, wherein said circumferential roughness average ($R_{a,y}$) is between approximately 0.15 and 1 micrometer.

7. The pulley of claim 6, wherein said circumferential roughness average ($R_{a,y}$) is between 0.17 and 0.3 micrometers, and said ratio $R_{a,x}/R_{a,y}$ is between 1.7 and 2.3.

8. The pulley of claim 6, wherein said outer surfaces are machined by shot peening, grinding, stone polishing or tape polishing.

9. A pulley engageable with a belt for use in a continuously variable transmission, comprising:

first and second pulley halves rotatable about an axis and relatively moveable in a direction of the axis, said pulley halves including
5 truncated conical portions symmetrically opposed to each other and outer surfaces being axially opposed to each other and sloped relative to the axis, said outer surfaces having a radial roughness average ($R_{a,x}$) measured in a direction (x) radial to the axis, a circumferential roughness average ($R_{a,y}$) measured in a direction (y) circumferential to the axis between approximately
10 0.15 and 1.0 micrometer, and a ratio $R_{a,x}/R_{a,y}$ between approximately 0.5 and 2.5.

10. The pulley of claim 9, wherein said circumferential roughness average ($R_{a,y}$) is between 0.17 and 0.3 micrometers, and said ratio $R_{a,x}/R_{a,y}$ is between 1.7 and 2.3.

11. The pulley of claim 9, wherein said outer surfaces are machined by shot peening, grinding, stone polishing or tape polishing.